X-LNG CASE STUDY · NOV 2025

Cancellation Profitability

23

cargoes cancelled when PSV slumps 25%; the base plan exercises its cancellation options on just 4

Cancellable book · Jan 2027 to Dec 2029 **Price sweeps** · HH, TTF and PSV at ±25% **Charter + spot tests** · the levers that barely matter

A cancellable Mediterranean book

CALYPSO COMMODITIES

European utility · US supply against Italian and NWE demand · sequel to the regas-slot option study

$144.2m	**4**	**10**	**5**
base profit · $1.38/MMBtu	cancellations in the base plan	firm cargoes/yr: 5 Sabine, 3 Livorno, 2 NWE	spot markets: Freeport, Dahej, Shenzhen +

Supply on **120% HH** formulas (Sabine Pass +$2, Livorno +$4, NWE Flex +$3.80); demand at Livorno on **PSV - $0.25**, NWE and Bizkaia on TTF discounts. All firm supply plus the Italian demand carry cancellation rights. The question this time: **not what the option is worth, but when it gets used.**

CALYPSO COMMODITIES

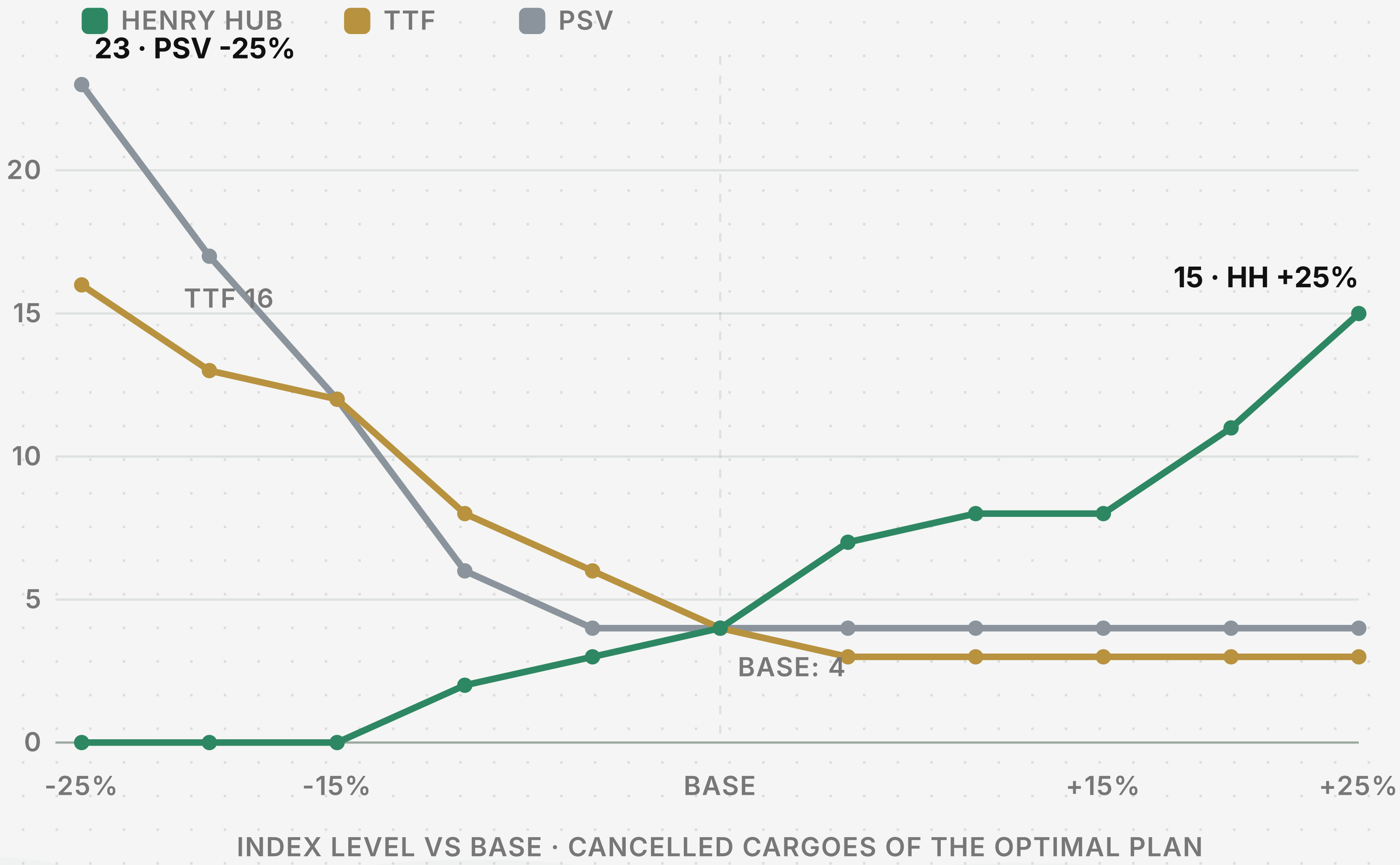
01

Price sweeps

Each index varied -25% to +25%, the book re-optimised at every step

Each index pulls a different lever

Cancelled cargoes per re-optimised plan across the sweep

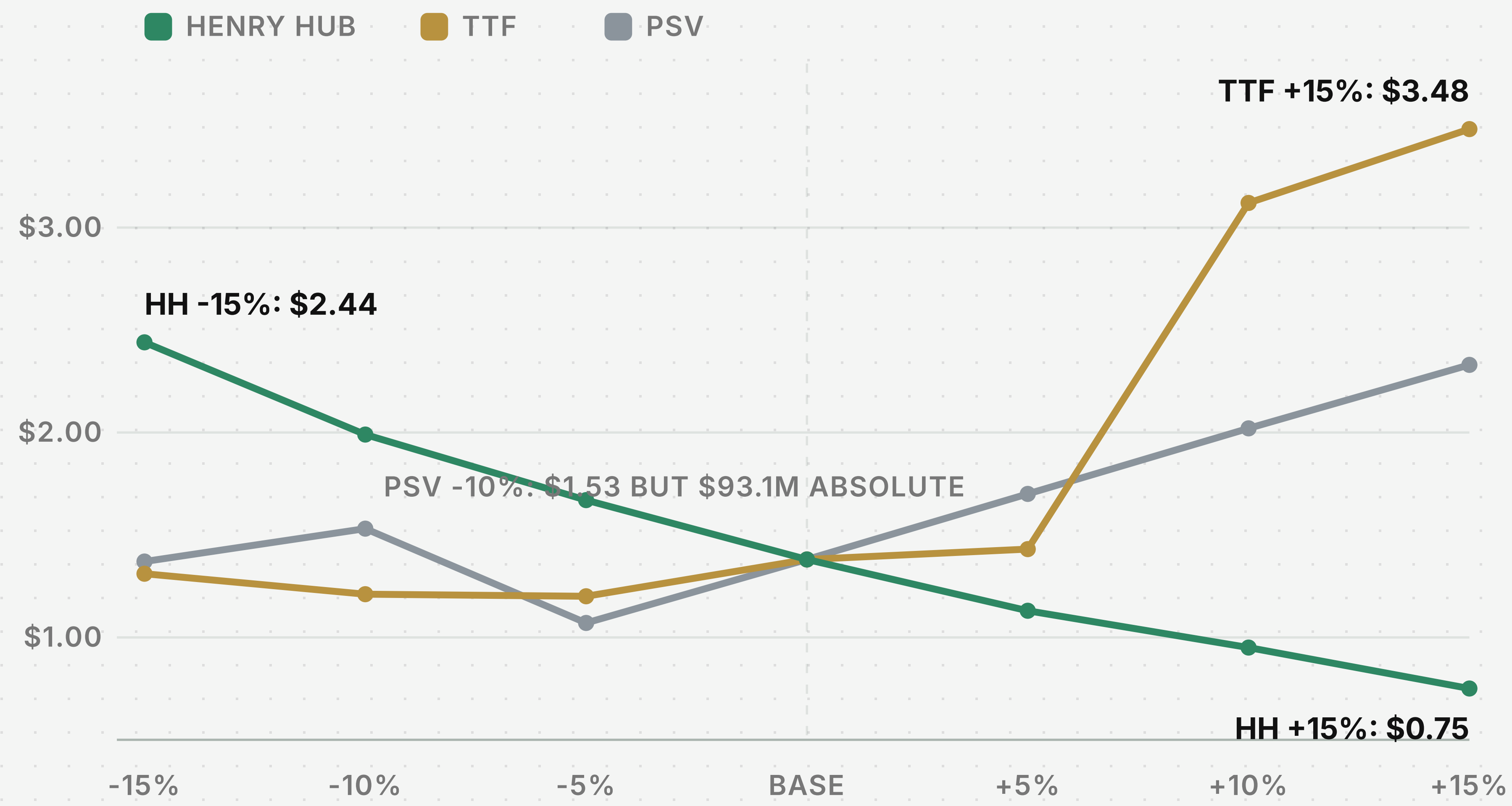


EXACT TABLE VALUES AT ±5/10/15% · CHART READ AT ±20/25%

Henry Hub rallies drive cancellations up as firm HH supply loses to spot; PSV and TTF slumps spike them as spot beats firm delivery.

Margin often moves the other way

Portfolio P&L per MMBtu under the same shifts



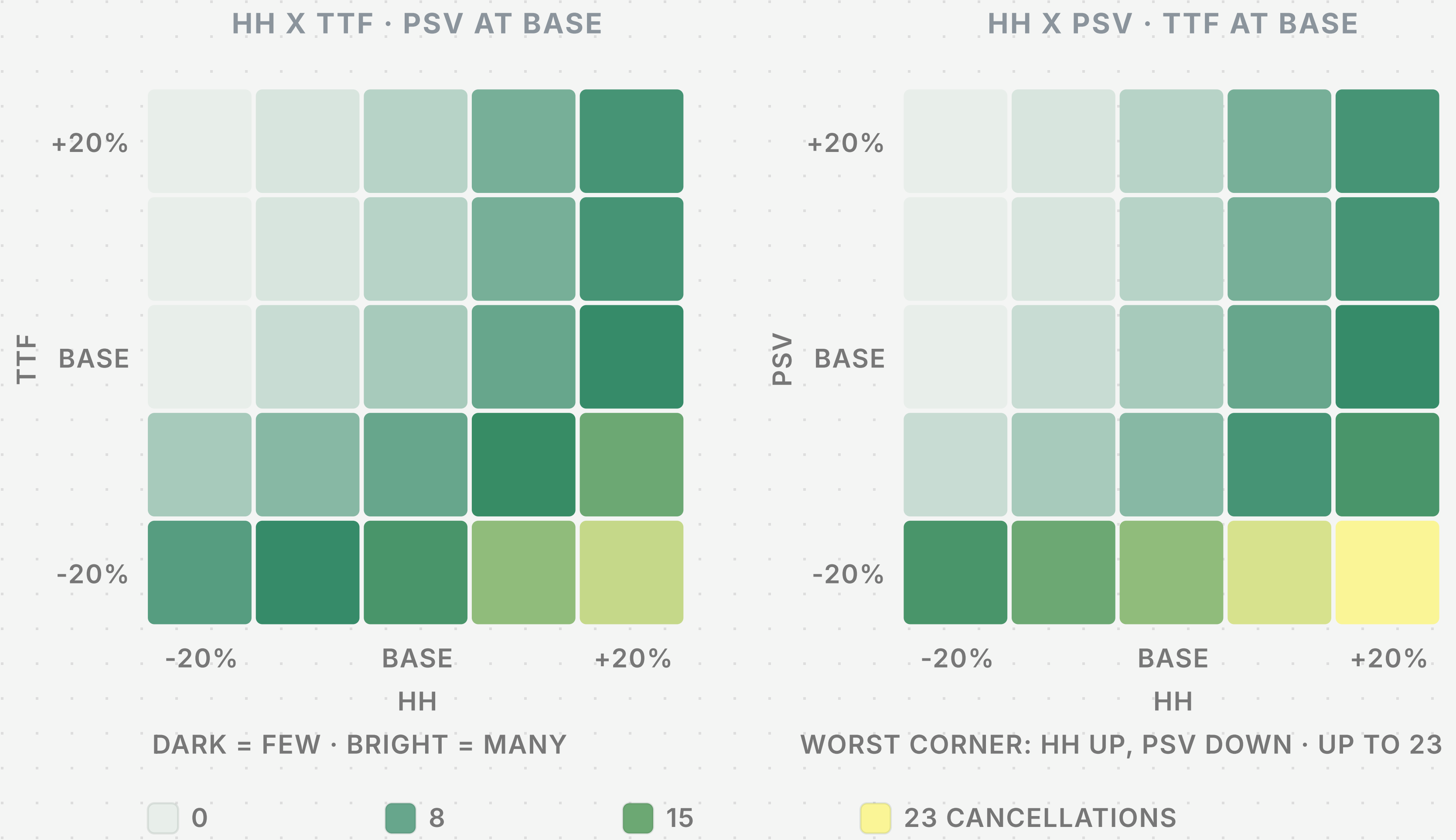
INDEX SHIFT · PORTFOLIO P&L $/MMBTU · BASE $1.38

EXACT ENGINE VALUES PER SHIFT · BASE $1.38/MMBTU, $144.2M

A TTF rally lifts the margin to $3.48 with FEWER cancellations; a PSV slump shows $1.53/MMBtu on only $93.1M absolute profit.

Where the cancellations live

Two indices varied at once: the cancellation surface



CELL COLOURS QUALITATIVE, LABELLED ANCHORS FROM THE ENGINE RUNS · SCALE 0 TO 23

The worst corner is a Henry Hub rally meeting a PSV slump: unlikely, since the two are highly correlated, but exactly what hedges should be sized against.

THE VERDICT

Henry Hub rallies drive cancellations up, PSV slumps spike them to 23: and charter seasonality changes almost nothing.

Cancellation rights are a price-index story. Knowing which index moves your count, and which merely moves your margin, is what turns an option clause into a managed position.

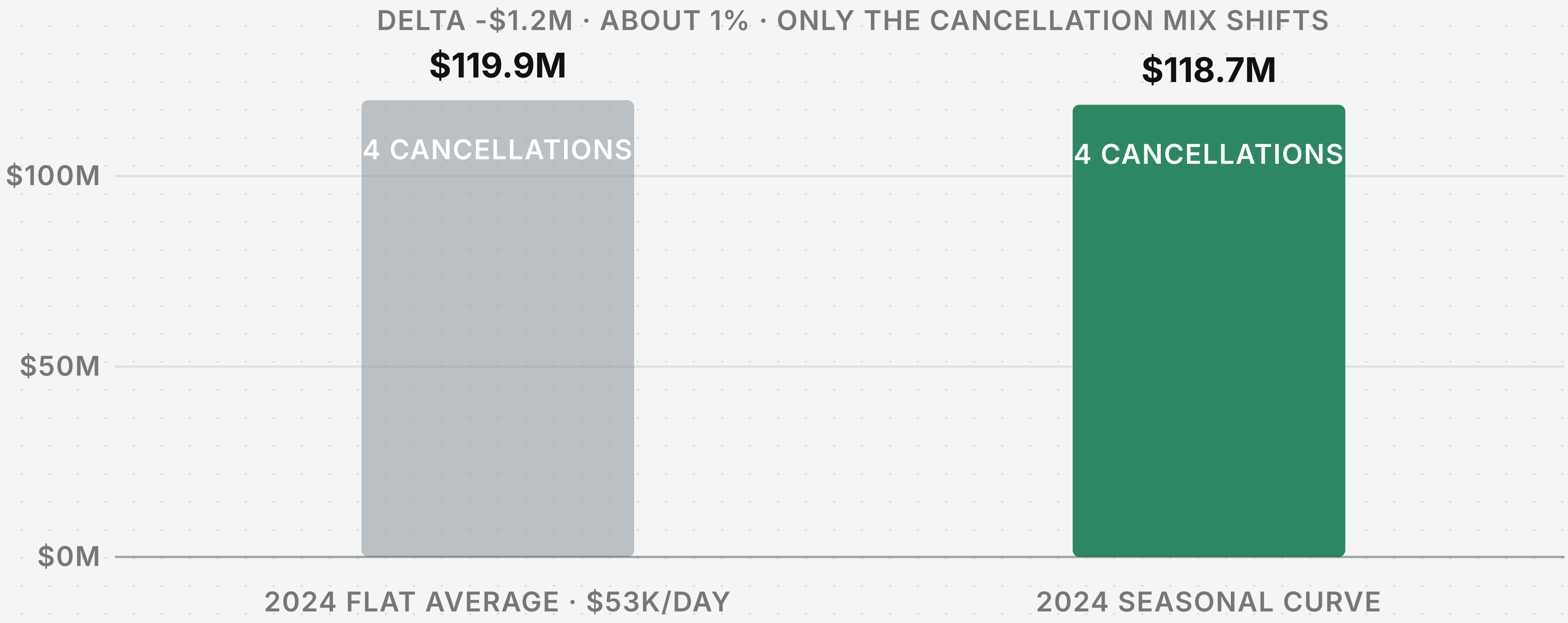
The other levers

Charter seasonality and extra spot markets, tested the same way

02

Charter seasonality barely matters

Flat $53k/day average against the full 2024 seasonal curve

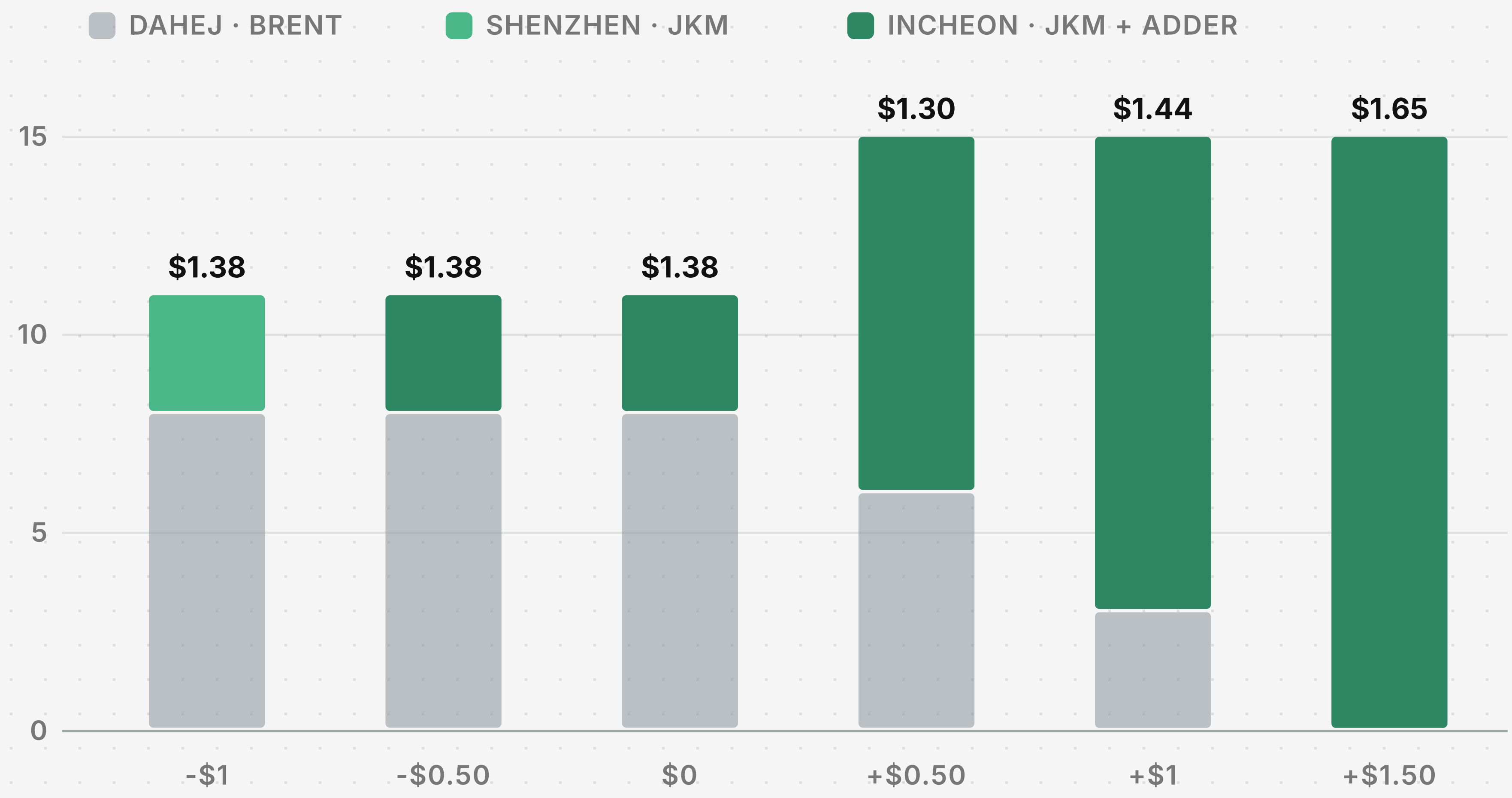


2018–2024 SEASONAL AVERAGES CONFIRM: STILL 4 CANCELLATIONS AT $1.24/MMBTU

About one percent of profit and an unchanged count of four; only the cancellation mix shifts slightly.

Extra spot markets re-route, not cancel

A new Incheon outlet with a swept JKM adder



INCHEON JKM ADDER · DELIVERIES PER SPOT MARKET · $/MMBTU ABOVE EACH STACK

SWITCHING TO INCHEON BECOMES FAVOURABLE AROUND +$1 · BRENT-INDEXED DAHEJ IS SURPRISINGLY ROBUST

Deliveries move port by port with the adder, but every single scenario still cancels exactly four cargoes.

Takeaways

What moves the count, what moves the money

Each index pulls a different lever
HH rallies: 15 cancellations at +25%. PSV and TTF slumps: 23 and 16 at -25%. The base plan cancels just 4.

Cancellations and margin move independently
TTF +15% lifts the margin to $3.48/MMBtu with fewer cancellations; PSV -10% shows $1.53/MMBtu on only $93.1M absolute.

Freight and extra outlets are background noise
Seasonal charter rates move profit ~1% and leave the count at 4; new spot markets re-route deliveries but never change how many cargoes get cancelled.

Modelled with X-LNG

CALYPSO COMMODITIES

Whole-portfolio optimisation for LNG books

1

Your world goes in

Contracts, vessels, charter rates, prices, spot assumptions and constraints, the full book, not a slice.

2

One optimal plan comes out

Feasible, P&L-maximising and constraint-compliant, re-solved for every scenario in minutes.

3

Every number checks out

Each result can be recalculated by hand, transparency your risk committee can audit.

Cloud-based, any portfolio size · built and advanced daily by ~25 mathematicians, physicists and computer scientists.

See when your book should cancel

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